

# PATENT ABSTRACTS OF JAPAN

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## (54) CELLULAR MOBILE COMMUNICATIONS SYSTEM

### (57)Abstract:

**PURPOSE:** To provide an economical cellular mobile communications system which copes with fluctuation in a traffic and less cell number.

**CONSTITUTION:** Each base station 801 is provided with a variable gain power amplifier 112 amplifying a pilot signal P and a power control circuit 107 controlling its gain. The power control circuit 107 controls the transmission power gain in response to a control signal 106 given from a radio relay station 803 monitoring a traffic of each base station. The relay station 803 decreases the power gain in a base station of cells to which the traffic is concentrated and the power gain is increased to a base station of its peripheral cell and then a size of a cell 800d concentrated in the traffic is reduced. Thus, the transmission power of the base station is controlled in response to the traffic fluctuation due to location and time to vary a cell diameter or a cell area thereby allowing the system to cope with a communication demand with a few cells.

